

Mutations in the Estrogen Receptor in Human Breast Cancer Revisited

Professor Suzanne A. W. Fuqua

Professor of Medicine

Lester and Sue Smith Breast Center, Baylor College of Medicine, USA



Date: 29th April 2014
Time: 3.00 pm - 4.30 pm
Venue: Biopolis Proteos, #03-46
61 Biopolis Drive, Singapore 138673
Host: Prof Pär Nordlund, School of Biological Sciences, NTU

Abstract:

The idea that somatic Estrogen Receptor (ER) α mutations could play an important role in the evolution of hormone-dependent breast cancers was proposed some years ago, but has remained controversial until recently. A significant amount of new data has confirmed these initial observations and shown their significance, along with much additional work relevant to the treatment of breast cancer. Thus, it is the purpose of this lecture to summarize the research to date on the existence and clinical consequences of ER α mutations in primary and metastatic breast cancer. Dr. Fuqua will revisit the hypothesis put forth about the role of ER α mutations in breast cancer, and scrutinize recent data along with their clinical implication. It is hypothesized that maintenance of ER α expression, along with the selection of specific ER α mutations, were key events in breast cancer progression, most probably due to the selective pressure of hormonal treatment. Current research is moving quickly in support of this original hypothesis.

Biography:

Dr. Suzanne Fuqua received her Bachelor and Master of Science degrees from the University of Houston, and her PhD in Cancer Biology from the MD Anderson Cancer Center in Houston, Texas. She joined the University of Texas Health Science Center at San Antonio as a postdoctoral fellow in 1985, attaining the position of tenured Associate Professor in 1994. She moved with this breast cancer research group to the Baylor College of Medicine in 1999, where she was promoted to the rank of tenured Professor of Medicine. Dr. Fuqua holds a joint-appointment in the Department of Molecular and Cellular Biology, and is a faculty member of the Baylor Breast Center. Dr. Fuqua has published over 100 papers in peer-reviewed journals, and has authored 50 books/chapters. She is internationally known for her research on estrogen receptors, and their clinical significance in breast cancer progression and resistance to hormonal therapies.